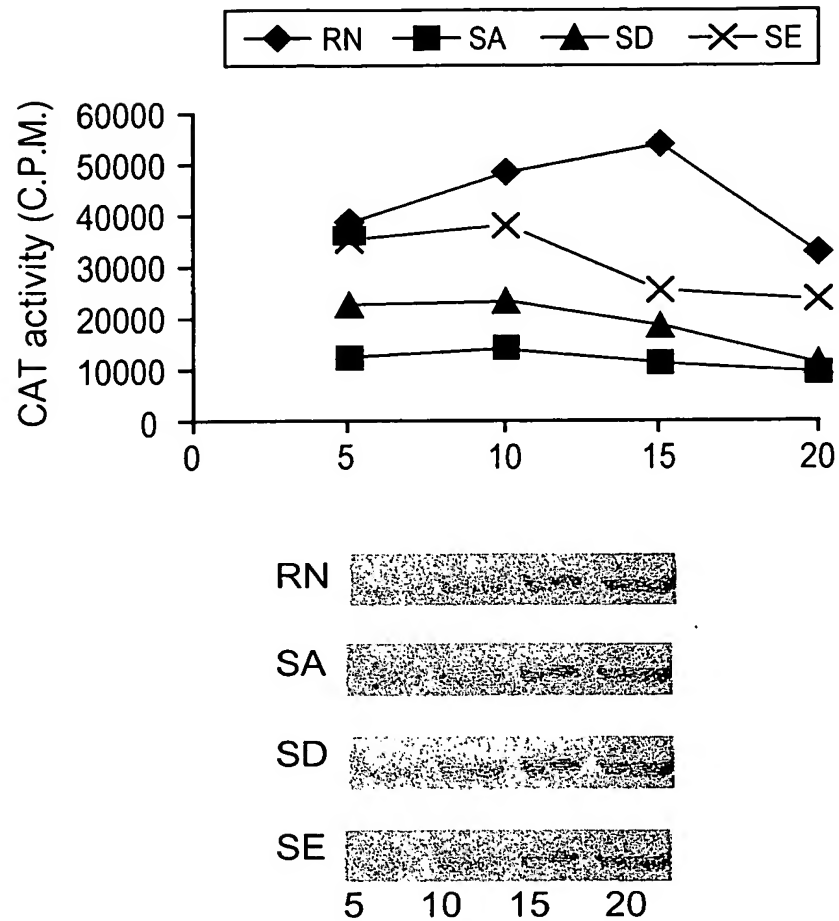


Fig. 1



Concentrations of N-expressing plasmids (  $\mu\text{g}$  )

Fig. 2

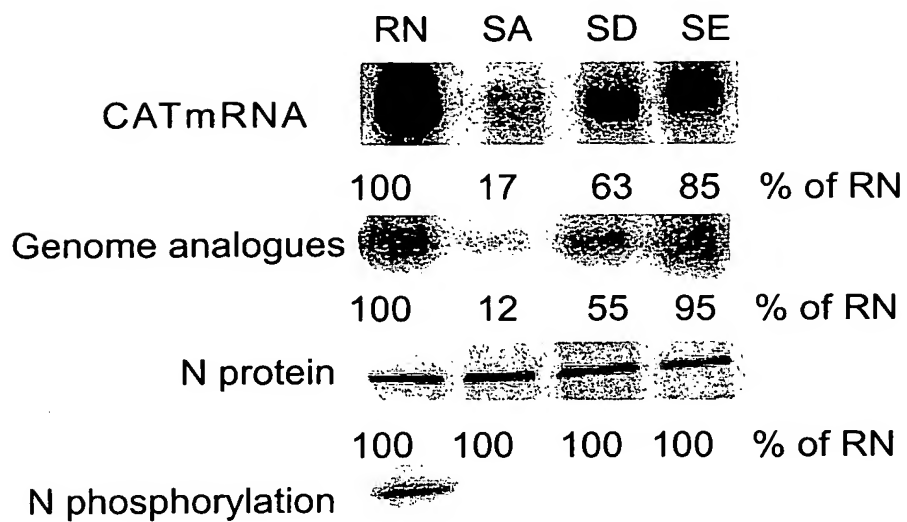


Fig. 3

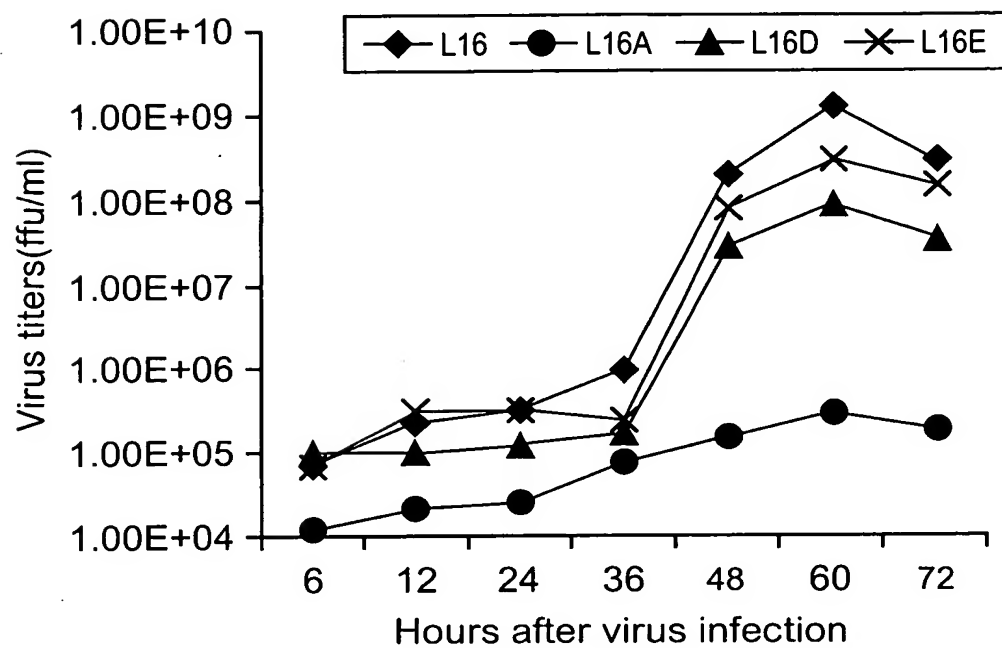
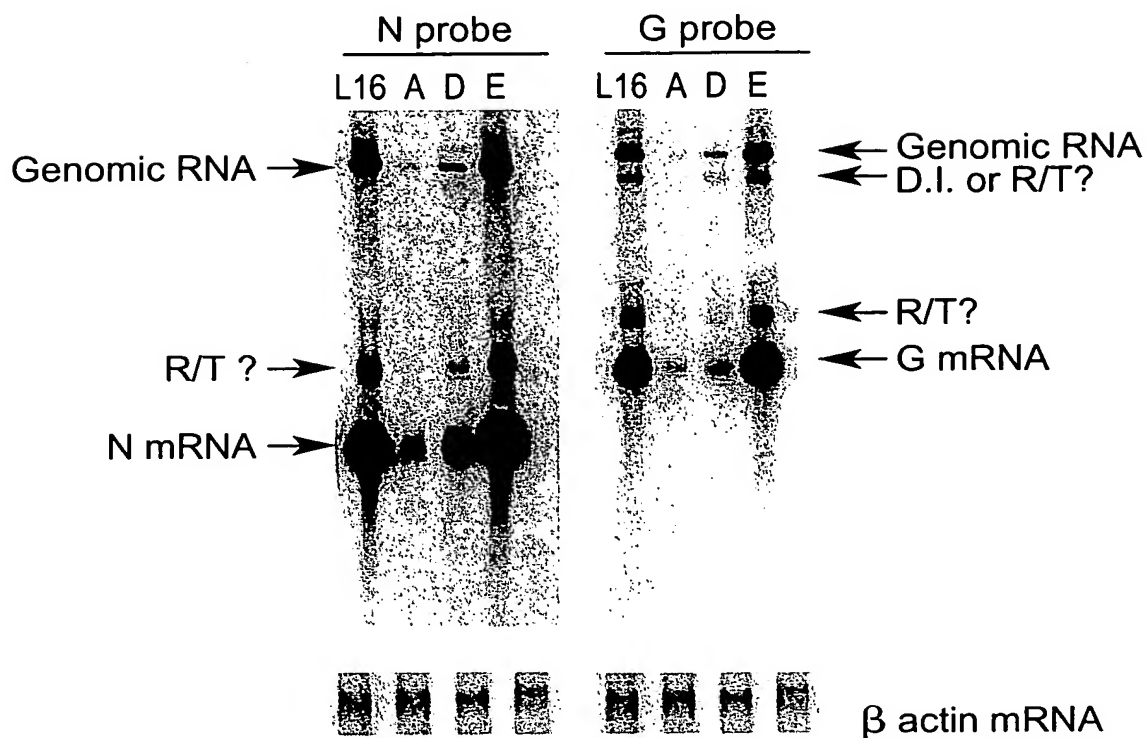


Fig. 4



		L16	A	D	E
N	Genomic RNA	100%	10.4%	45%	100%
N	mRNA	100%	28%	65%	100%
G	Genomic RNA	100%	12.2%	41%	100%
G	mRNA	100%	21%	60%	100%

Fig. 5

Fig. 6A

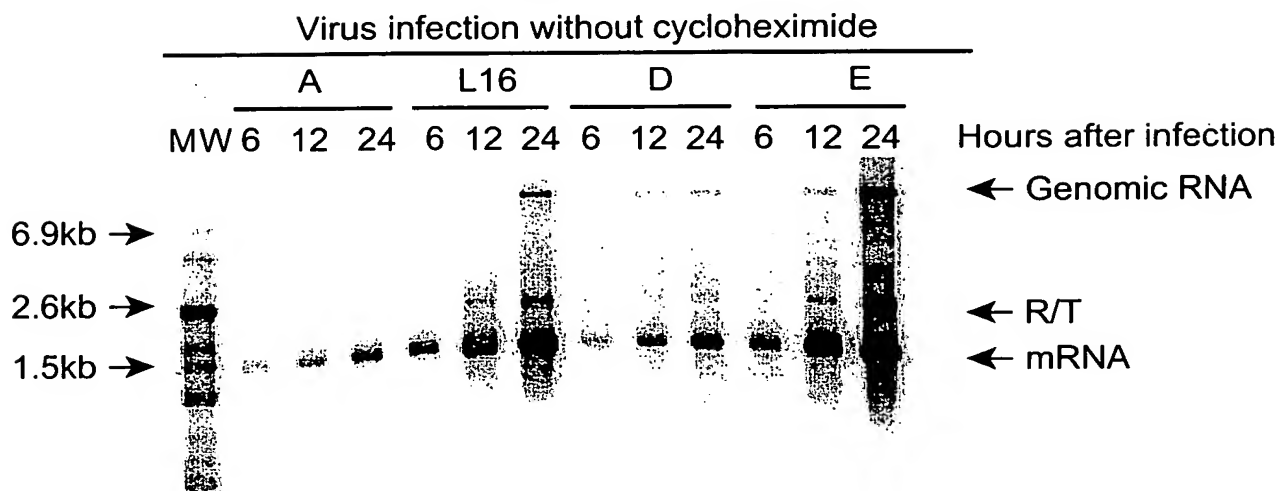
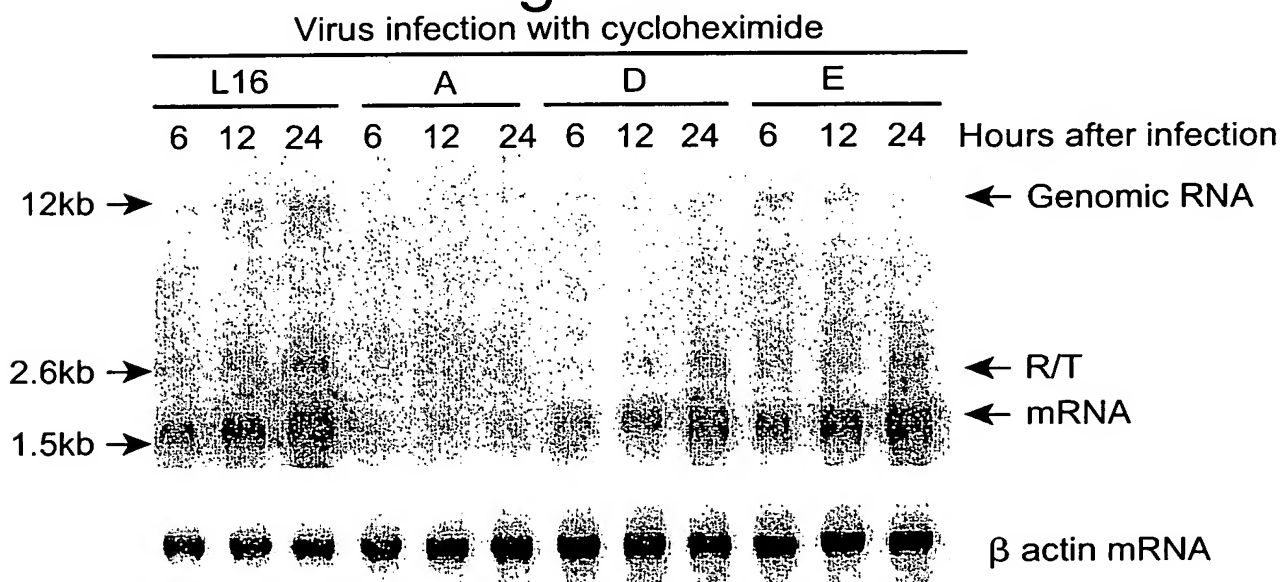


Fig. 6B



	L16	A	D	E
mRNA (6h)	100%	10%	53%	91%
mRNA (12h)	100%	12%	61%	95%
mRNA (24h)	100%	8%	65%	100%

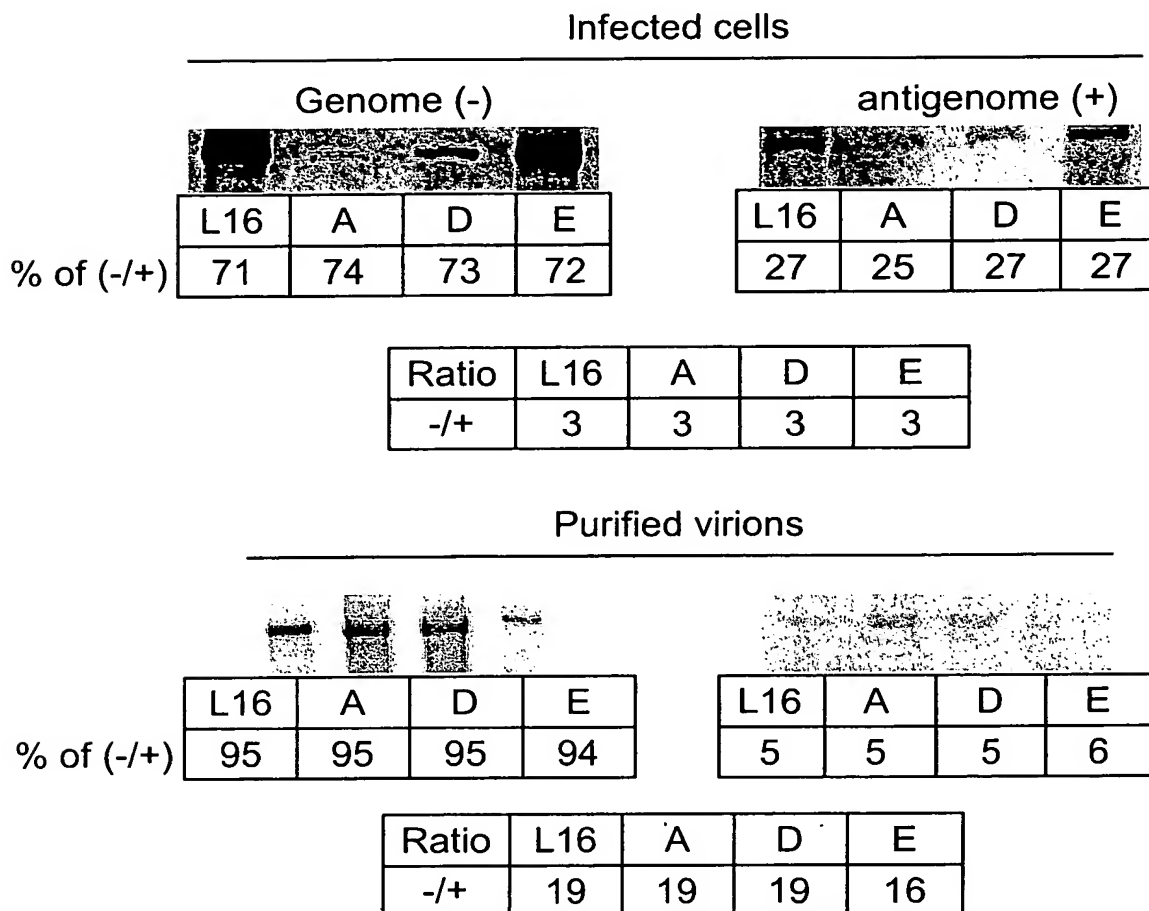
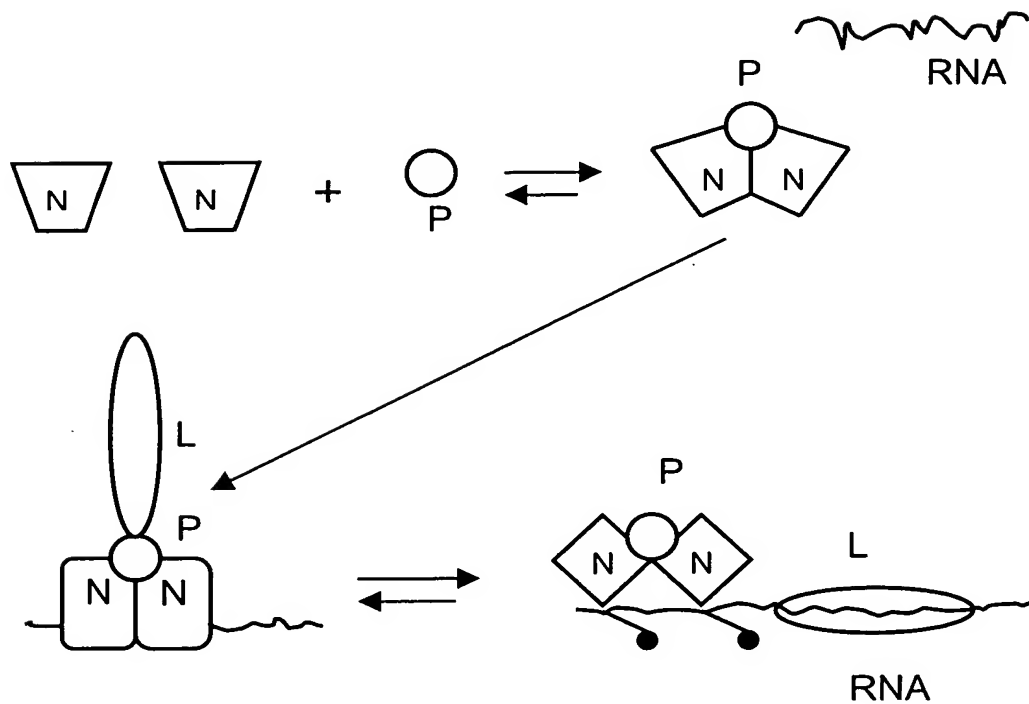


Fig. 7



( ● phosphate group)

Model of N Phosphorylation and its Effects on  
Viral Transcription and Replication

Fig. 8



Fig. 9A-1

```
1  acgcttaaca accagatcaa agaaaaaaca gacattgtca attgcaaagc aaaaatgtaa
61  cacccttaca atggatgccg acaagattgt attcaaagtc aataatcagg tggctctctt
121 gaagcctgag attatcgtgg atcaatatga gtacaagtac cctgccatca aagatttgaa
181 aaagccctgt ataaccctag gaaaggctcc cgatttaaataaagcataca agtcagtttt
241 gtcaggcatg agcgccgcc aacttaatcc tgacgatgta tgttcctatt tggcagcggc
301 aatgcagttt tttgagggga catgtccgga agactggacc agctatggaa ttgtgattgc
361 acgaaaagga gataagatca cccaggttc tctggtggag ataaaacgta ctgatgtaga
421 aggggaattgg gctctgacag gaggcattgga actgacaaga gacccactg tccctgagca
481 tgcgtcctta gtcggtcttc tcttgagtct gtatagggtg agcaaaatat ccgggcaaaa
541 cactggtaac tataagacaa acattgcaga caggatagag cagatttttg agacagcccc
601 ttttgttaaa atcgtggaac accatactct aatgacaact cacaaaatgt gtgctaattg
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1381 attcgccgag tttctaaaca agacatatctc gagtgactca taagaagttg aataacaaaa
1441 tgccggaaat ctacggattg tgtatatcca tcatgaaaaa aactaacacc cctcctttcg
1501 aaccatccca aacatgagca agatctttgt caatcctagt gctattagag ccggtctggc
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1621 ggctcatctc caaggggaac ccatagaggt ggacaatctc cctgaggata tggggcgact
1681 tcacctggat gatggaaaat cgcccaacca tgggtgagata gccaaaggtgg gagaaggcaa
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```

Fig. 9A-2

```
1801 cctggaaaat gttggagtcc aaatagtcag acaaatgagg tcaggagaga gatttctcaa
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1921 tccaggaaag tcttcagagg ataaatcaac ccagactact ggccgagagc tcaagaagga
1981 gacaacaccc actccttctc agagagaaag ccaatcatcg aaagccagga tggcggctca
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2221 tatagttaaa gaggcaaaaa atgtaccagg tgtgaccctg ttagcccatg acgggtccaa
2281 actcccccta agatgtgtac tgggatgggt cgctttggcc aactctaaga aattccagtt
2341 gttagtcgaa tccgacaagc tgagtaaaat catgcaagat gacttgaatc gctatacatc
2401 ttgctaaccg aacctctccc ctgagtcctt ctagacaata aaatccgaga tgtcccaaag
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```

## Fig. 9A-3

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4081 ggatggaaca tgggtctcga tgcaaacatc aaatgaaacc aaatgggtgcc ctcccgataa
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```

Fig. 9A-4

```
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## Fig. 9A-5

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7201 gatcgacagg gtcaccgggc aagggtttt ggactattca agggtcacat atgcatttca
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```

Fig. 9A-6

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10681 cagagtgata gatcttgact caatctggga aaaaccgtcc gacttgagaa acttggcaac
10741 ctggaaatac ttccagtcag tccaaaagca ggtcaacatg tcctatgacc tcattatttg
```

## Fig. 9A-7

```
10801 cgatgcagaa gttactgaca ttgcatctat caaccggatc accctgttaa tgtccgattt
10861 tgcattgtct atagatggac cactctatct ggtcttcaaa acttatggga ctatgctagt
10921 aaatccaaac tacaaggcta ttcaacacct gtcaagagcg ttcccctcgg tcacagggtt
10981 tatcacccaa gtaacttcgt ctttttcatc tgagctctac ctccgattct ccaaacgagg
11041 gaagtttttc agagatgctg agtacttgac ctcttccacc cttcgagaaa tgagccttgt
11101 gttattcaat tgtagcagcc ccaagagtga gatgcagaga gctcgttcct tgaactatca
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11281 gttacagagg ggaactctgt ctaaagtggc tatcattata gccatcatga tagttttctc
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```

Fig. 9B-1

```
1  acgcttaaca accagatcaa agaaaaaaca gacattgtca attgcaaagc aaaaatgtaa
61  caccctaca atggatgccg acaagattgt attcaaagtc aataatcagg tggctctctt
121 gaagcctgag attatcgtgg atcaatatga gtacaagtac cctgccatca aagatttgaa
181 aaagccctgt ataaccctag gaaaggctcc cgatttaa ataaagcataca agtcagtttt
241 gtcaggcatg agcgccgcca aacttaatcc tgacgatgta tgttcctatt tggcagcggc
301 aatgcagttt tttgagggga catgtccgga agactggacc agctatggaa ttgtgattgc
361 acgaaaagga gataagatca cccaggttc tctggtggag ataaaacgta ctgatgtaga
421 agggaattgg gctctgacag gaggcattga actgacaaga gacccactg tccctgagca
481 tgcgtcctta gtcggtcttc tcttgagtct gtatagggtg agcaaaatat ccgggcaaaa
541 cactggtaac tataagacaa acattgcaga caggatagag cagatttttg agacagcccc
601 ttttgttaaa atcgtggaac accatactct aatgacaact cacaaaatgt gtgctaattg
661 gagtactata ccaaacttca gatttttggc cggaacctat gacatgtttt tctcccggat
721 tgagcatcta tattcagcaa tcagagtggg cacagtgtgc actgcttatg aagactgttc
781 aggactggta tcatttactg ggttcataaa acaaatcaat ctcaccgcta gagaggcaat
841 actatatttc ttccacaaga actttgagga agagataaga agaattgttg agccagggca
901 ggagacagct gttcctcact cttatttcat ccacttccgt tcactaggct tgagtgggaa
961 atctccttat tcatcaa atg ctggttggtca cgtgttcaat ctcattcact ttgtaggatg
1021 ctatatgggt caagtcagat ccctaaatgc aacggttatt gctgcatgtg ctcctcatga
1081 aatgtctgtt ctagggggct atctgggaga ggaattcttc gggaaaggga catttgaaag
1141 aagattcttc agagatgaga aagaacttca agaatacgag gcggctgaac tgacaaagac
1201 tgacgtagca ctggcagatg atggaactgt caacGCTgac gacgaggact acttttcagg
1261 tgaaaccaga agtccggagg ctgtttatac tcgaatcatg atgaatggag gtcgactaaa
1321 gagatctcac atacggagat atgtctcagt cagttccaat catcaagccc gtccaaactc
1381 attcgccgag tttctaaaca agacatatcc gagtgactca taagaagttg aataacaaaa
1441 tgccggaaat ctacggattg tgtatatcca tcatgaaaaa aactaacacc cctcctttcg
1501 aaccatccca aacatgagca agatctttgt caatcctagt gctattagag ccggtctggc
1561 cgatcttgag atggctgaag aaactgttga tctgatcaat agaaatatcg aagacaatca
1621 ggctcatctc caaggggaac ccatagaggt ggacaatctc cctgaggata tggggcgact
1681 tcacctggat gatggaaaat cgcccaacca tggtagata gccaaaggtg gagaaaggcaa
1741 gtatcgagag gactttcaga tggatgaagg agaggatcct agcttcctgt tccagtcata
1801 cctggaaaaa gttggagtcc aaatagtcag acaaatgagg tcaggagaga gatttctcaa
```



Fig. 9B-2

1861	gatatggtca	cagaccgtag	aagagattat	atcctatgtc	gcggtcaact	ttcccaaccc
1921	tccaggaaag	tcttcagagg	ataaatcaac	ccagactact	ggccgagagc	tcaagaagga
1981	gacaacaccc	actccttctc	agagagaaag	ccaatcatcg	aaagccagga	tggcggctca
2041	aattgcttct	ggccctccag	cccttgaatg	gtcggctacc	aatgaagagg	atgatctatc
2101	agtggaggct	gagatcgctc	accagattgc	agaaagtttc	tccaaaaaat	ataagtttcc
2161	ctctcgatcc	tcagggatac	tcttgataaa	ttttgagcaa	ttgaaaatga	accttgatga
2221	tatagttaaa	gaggcaaaaa	atgtaccagg	tgtgaccctg	ttagcccatg	acgggtccaa
2281	actcccccta	agatgtgtac	tgggatgggt	cgctttggcc	aactctaaga	aattccagtt
2341	gttagtcgaa	tccgacaagc	tgagtaaaat	catgcaagat	gacttgaatc	gctatacatc
2401	ttgctaaccg	aacctctccc	ctcagtcctt	ctagacaata	aaatccgaga	tgtcccaaag
2461	tcaacatgaa	aaaaacaggc	aacaccactg	ataaaatgaa	cctcctacgt	aagatagtga
2521	aaaaccgcag	ggacgaggac	actcaaaaat	cctctcccg	gtcagcccct	ctggatgacg
2581	atgacttgtg	gcttccaccc	cctgaatacg	tcccgtgaa	agaacttaca	ggcaagaaga
2641	acatgaggaa	cttttgtatc	aacggaaggg	ttaaagtgtg	tagcccgaat	ggttactcgt
2701	tcaggatcct	gcggcacatt	ctgaaatcat	tcgacgagat	atattctggg	aatcatagga
2761	tgatcgggtt	agtcaaagtg	gttattggac	tggctttgtc	aggatctcca	gtccctgagg
2821	gcctgaactg	ggtatacaaa	ttgaggagaa	cctttatctt	ccagtgggct	gattccaggg
2881	gccctcttga	aggggaggag	ttggaatact	ctcaggagat	cacttgggat	gatgatactg
2941	agttcgtcgg	attgcaaata	agagtgattg	caaaacagtg	tcatatccag	ggcagagtct
3001	ggtgtatcaa	catgaacccg	agagcatgtc	aactatgggtc	tgacatgtct	cttcagacac
3061	aaaggtccga	agaggacaaa	gattcctctc	tgcttctaga	ataatcagat	tatatcccg
3121	aaatttatca	cttgtttacc	tctggaggag	agaacatatg	ggctcaactc	caacccttgg
3181	gagcaatata	acaaaaaaca	tgttatgggtg	ccattaaacc	gctgcatttc	atcaaagtca
3241	agttgattac	ctttacattt	tgatcctctt	ggatgtgaaa	aaaactatta	acatccctca
3301	aaagactcaa	ggaaagatgg	ttcctcaggc	tctcctgttt	gtacccttcc	tggtttttcc
3361	attgtgtttt	gggaaattcc	ctatttacac	gataccagac	aagcttgggtc	cctggagtcc
3421	gattgacata	catcacctca	gctgccc aaa	caatttggtg	gtggaggacg	aaggatgcac
3481	caacctgtca	gggttctcct	acatggaact	taaagtggga	tacatcttag	ccataaaaagt
3541	gaacgggttc	acttgcacag	gcgttgtgac	ggaggctgaa	acctacacta	acttcgttgg
3601	ttatgtcaca	accacgttca	aaagaaagca	tttccgcccc	acaccagatg	catgtagagc

Fig. 9B-3

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3661 cgcgtacaac tggaagatgg ccggtgaccc cagatatgaa gagtctctac acaatccgta
3721 ccctgactac cgctggcttc gaactgtaaa aaccaccaag gagtctctcg ttatcatatc
3781 tccaagtgtg gcagatttgg acccatatga cagatccctt cactcgaggg tcttccctag
3841 cgggaagtgc tcaggagtag cgggtgtcttc tacctactgc tccactaacc acgattacac
3901 catttgatg cccgagaatc cgagactagg gatgtcttgt gacattttta ccaatagtag
3961 agggaagaga gcatccaaag ggagtgagac ttgcggcttt gtagatgaaa gaggcctata
4021 taagtcttta aaaggagcat gcaaactcaa gttatgtgga gttctaggac ttagacttat
4081 ggatggaaca tgggtctcga tgcaaacatc aaatgaaacc aaatgggtgcc ctcccgataa
4141 gttggtgaac ctgcacgact ttcgctcaga cgaaattgag caccttggtg tagaggagtt
4201 ggtcaggaag agagaggagt gtctggatgc actagagtcc atcatgacaa ccaagtcagt
4261 gagtttcaga cgtctcagtc atttaagaaa acttgctccct gggtttggaa aagcatatac
4321 catattcaac aagaccttga tggaagccga tgctcactac aagtcagtca gaacttgga
4381 tgagatcctc cttcaaaaag ggtgtttaag agttgggggg aggtgtcatc ctcagtga
4441 cggggtgttt ttcaatggta taatattagg acctgacggc aatgtcttaa tcccagagat
4501 gcaatcatcc ctcctccagc aacatatgga gttgttgga tcctcggtta tcccccttgt
4561 gcacccctg gcagaccgt ctaccgttt caaggacggt gacgaggctg aggattttgt
4621 tgaagttcac cttcccgatg tgcacaatca ggtctcagga gttgacttggt gtctcccgaa
4681 ctgggggaag tatgtattac tgagtgcagg ggccctgact gccttgatgt tgataatttt
4741 cctgatgaca tgttgtagaa gagtcaatcg atcagaacct acgcaacaca atctcagagg
4801 gacagggagg gaggtgtcag tcaactccca aagcgggaag atcatatctt catgggaatc
4861 acacaagagt gggggtgaga ccagactgta aggactggcc gtcctttcaa cgatccaagt
4921 cctgaagatc acctcccctt ggggggttct ttttgaaaaa cctgggttca atagtcctcc
4981 ttgaactcca tgcaactggg tagattcaag agtcatgaga ttttcattaa tcctctcagt
5041 tgatcaagca agatcatgtc gattctcata ataggggaga tcttctagca gtttcagtga
5101 ctaacgggtac tttcattctc caggaactga caccaacagt tgtagacaaa ccacgggggtg
5161 tctcgggtga ctctgtgctt gggcacagac aaagggtcatg gtgtgttcca tgatagcgga
5221 ctcaggatga gttaattgag agaggcagtc ttcctcccgt gaaggacata agcagtagct
5281 cacaatcatc tcggtctca gcaaagtgtg cataattata aagtgtctgg tcactaagc
5341 ttttcagtcg agaaaaaac attagatcag aagaacaact ggcaacactt ctcaacctga
5401 gacttacttc aagatgctcg atcctggaga ggtctatgat gaccctattg acccaatcga
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Fig. 9B-4

5461	g t t a g a g g c t	g a a c c c a g a g	g a a c c c c c a t	t g t c c c c a a c	a t c t t g a g g a	a c t c t g a c t a
5521	c a a t c t c a a c	t c t c c t t t g a	t a g a a g a t c c	t g c t a g a c t a	a t g t t a g a a t	g g t t a a a a a c
5581	a g g g a a t a g a	c c t t a t c g g a	t g a c t c t a a c	a g a c a a t t g c	t c c a g g t c t t	t c a g a g t t t t
5641	g a a a g a t t a t	t t c a a g a a g g	t a g a t t t g g g	t t c t c t c a a g	g t g g g c g g a a	t g g c t g c a c a
5701	g t c a a t g a t t	t c t c t c t g g t	t a t a t g g t g c	c c a c t c t g a a	t c c a a c a g g a	g c c g g a g a t g
5761	t a t a a c a g a c	t t g g c c c a t t	t c t a t t c c a a	g t c g t c c c c c	a t a g a g a a g c	t g t t g a a t c t
5821	c a c g c t a g g a	a a t a g a g g g c	t g a g a a t c c c	c c c a g a g g g a	g t g t t a a g t t	g c c t t g a g a g
5881	g g t t g a t t a t	g a t a a t g c a t	t t g g a a g g t a	t c t t g c c a a c	a c g t a t t c c t	c t t a c t t g t t
5941	c t t c c a t g t a	a t c a c c t t a t	a c a t g a a c g c	c c t a g a c t g g	g a t g a a g a a a	a g a c c a t c c t
6001	a g c a t t a t g g	a a a g a t t t a a	c c t c a g t g g a	c a t c g g g a a g	g a c t t g g t a a	a g t t c a a a g a
6061	c c a a a t a t g g	g g a c t g c t g a	t c g t g a c a a a	g g a c t t t g t t	t a c t c c c a a a	g t t c c a a t t g
6121	t c t t t t t g a c	a g a a a c t a c a	c a c t t a t g c t	a a a a g a t c t t	t t c t t g t c t c	g c t t c a a c t c
6181	c t t a a t g g t c	t t g c t c t c t c	c c c c a g a g c c	c c g a t a c t c a	g a t g a c t t g a	t a t c t c a a c t
6241	a t g c c a g c t g	t a c a t t g c t g	g g g a t c a a g t	c t t g t c t a t g	t g t g g a a a c t	c c g g c t a t g a
6301	a g t c a t c a a a	a t a t t g g a g c	c a t a t g t c g t	g a a t a g t t t a	g t c c a g a g a g	c a g a a a a g t t
6361	t a g g c c t c t c	a t t c a t t c c t	t g g g a g a c t t	t c c t g t a t t t	a t a a a a g a c a	a g g t a a g t c a
6421	a c t t g a a g a g	a c g t t c g g t c	c c t g t g c a a g	a a g g t t c t t t	a g g g c t c t g g	a t c a a t t c g a
6481	c a a c a t a c a t	g a c t t g g t t t	t t g t g t t t g g	c t g t t a c a g g	c a t t g g g g g c	a c c c a t a t a t
6541	a g a t t a t c g a	a a g g g t c t g t	c a a a a c t a t a	t g a t c a g g t t	c a c c t t a a a a	a a a t g a t a g a
6601	t a a g t c c t a c	c a g g a g t g c t	t a g c a a g c g a	c c t a g c c a g g	a g g a t c c t t a	g a t g g g g t t t
6661	t g a t a a g t a c	t c c a a g t g g t	a t c t g g a t t c	a a g a t t c c t a	g c c c g a g a c c	a c c c c t t g a c
6721	t c c t t a t a t c	a a a a c c c a a a	c a t g g c c a c c	c a a a c a t a t t	g t a g a c t t g g	t g g g g g g a t a c
6781	a t g g c a c a a g	c t c c c g a t c a	c g c a g a t c t t	t g a g a t t c c t	g a a t c a a t g g	a t c c g t c a g a
6841	a a t a t t g g a t	g a c a a a t c a c	a t t c t t t c a c	c a g a a c g a g a	c t a g c t t c t t	g g c t g t c a g a
6901	a a a c c g a g g g	g g g c c t g t t c	c t a g c g a a a a	a g t t a t t a t c	a c g g c c c t g t	c t a a g c c g c c
6961	t g t c a a t c c c	c g a g a g t t t c	t g a g g t c t a t	a g a c c t c g g a	g g a t t g c c a g	a t g a a g a c t t
7021	g a t a a t t g g c	c t c a a g c c a a	a g g a a c g g g a	a t t g a a g a t t	g a a g g t c g a t	t c t t t g c t c t
7081	a a t g t c a t g g	a a t c t a a g a t	t g t a t t t t g t	c a t c a c t g a a	a a a c t c t t g g	c c a a c t a c a t
7141	c t t g c c a c t t	t t t g a c g c g c	t g a c t a t g a c	a g a c a a c c t g	a a c a a g g t g t	t t a a a a a g c t
7201	g a t c g a c a g g	g t c a c c g g g c	a a g g g c t t t t	g g a c t a t t c a	a g g g t c a c a t	a t g c a t t t c a

## Fig. 9B-5

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7261 cctggactat gaaaagtgga acaaccatca aagattagag tcaacagagg atgtattttc
7321 tgtcctagat caagtgtttg gattgaagag agtgttttct agaacacacg agttttttca
7381 aaaggcctgg atctattatt cagacagatc agacctcatc gggttacggg aggatcaaat
7441 atactgctta gatgcgtcca acggcccaac ctgttggaat ggccaggatg gcgggctaga
7501 aggcttacgg cagaagggct ggagtctagt cagcttattg atgatataga gagaatctca
7561 aatcaggaac acaagaacca aaatactagc tcaaggagac aaccagggtt tatgtccgac
7621 atacatgttg tcgccagggc tatctcaaga ggggctcctc tatgaattgg agagaatatc
7681 aaggaatgca ctttcgatat acagagccgt cgaggaaggg gcatctaagc tagggctgat
7741 catcaagaaa gaagagacca tgtgtagtta tgacttcctc atctatggaa aaaccctttt
7801 gtttagaggt aacatatattg tgcctgagtc caaaagatgg gccagagtct cttgcgtctc
7861 taatgaccaa atagtcaacc tcgccaatat aatgtcgaca gtgtccacca atgcgctaac
7921 agtggcacia cactctcaat ctttgatcaa accgatgagg gatthttctgc tcatgtcagt
7981 acaggcagtc tttcactacc tgctatttag cccaatctta aagggaagag ttacaagat
8041 tctgagcgct gaaggggaga gctttctcct agccatgtca aggataatct atctagatcc
8101 ttctttggga gggatatctg gaatgtccct cggaagattc catatacgac agttctcaga
8161 ccctgtctct gaaggggttat ctttctggag agagatctgg ttaagctccc aagagtcctg
8221 gattcacgcy ttgtgtcaag aggctggaaa ccagatctt ggagagagaa cactcgagag
8281 cttcactcgc cttctagaag atccgaccac cttaaataatc agaggagggg ccagtcctac
8341 cattctactc aaggatgcaa tcagaaaggc tttatatgac gaggtggaca aggtggaaaa
8401 ttcagagttt cgagaggcaa tcctgttgct caagacccat agagataatt ttatactctt
8461 cttaatatct gttgagcctc tgtttcctcg atttctcagt gagctattca gttcgtcttt
8521 tttgggaatc cccgagtcaa tcattggatt gatacaaaac tcccgaacga taagaaggca
8581 gtttagaaaag agtctctcaa aaactttaga agaactcttc tacaactcag agatccacgg
8641 gattagtcgg atgaccaga cacctcagag ggttgggggg gtgtggcctt gctcttcaga
8701 gagggcagat ctacttaggg agatctcttg gggaagaaaa gtggtaggca cgacagttcc
8761 tcacccttct gagatgttgg gattacttcc caagtcctct atttcttgca cttgtggagc
8821 aacaggagga ggcaatccta gagtttctgt atcagtactc ccgtcctttg atcagtcatt
8881 tttttcacga ggccccctaa agggatactt gggctcgtcc acctctatgt cgaccagct
8941 attccatgca tgggaaaaag tcactaatgt tcatgtggtg aagagagctc tatcgtaaaa
9001 agaactctata aactgggttca ttactagaga ttccaacttg gctcaagctc taattaggaa
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Fig. 9B-6

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9061 cattatgtct ctgacaggcc ctgatttccc tctagaggag gccctgtct tcaaaaggac
9121 ggggtcagcc ttgcataggt tcaagtctgc cagatacagc gaaggagggt attcttctgt
9181 ctgcccgaac ctctctctc atatttctgt tagtacagac accatgtctg atttgaccca
9241 agacgggaag aactacgatt tcatgttcca gccattgatg ctttatgcac agacatggac
9301 atcagagctg gtacagagag acacaaggct aagagactct acgtttcatt ggcacctccg
9361 atgcaacagg tgtgtgagac ccattgacga cgtgaccctg gagacctctc agatcttcga
9421 gtttccggat gtgtcgaaaa gaatatccag aatggtttct ggggctgtgc ctcacttcca
9481 gaggcttccc gatatccgtc tgagaccagg agattttgaa tctctaagcg gtagagaaaa
9541 gtctcaccat atcggatcag ctcaggggct cttatactca atcttagtgg caattcacga
9601 ctcaggatac aatgatggaa ccatcttccc tgtcaacata tacggcaagg tttcccctag
9661 agactatttg agagggctcg caaggggagt attgatagga tcctcgattt gcttcttgac
9721 aagaatgaca aatatcaata ttaatagacc tcttgaattg gtctcagggg taatctcata
9781 tattctctcg aggctagata accatccctc cttgtacata atgctcagag aaccgtctct
9841 tagaggagag atattttcta tccctcagaa aatccccgcc gcttatccaa ccactatgaa
9901 agaaggcaac agatcaatct tgtgttatct ccaacatgtg ctacgctatg agcgagagat
9961 aatcacggcg tctccagaga atgactggct atggatcttt tcagacttta gaagtgccaa
10021 aatgacgtac ctatccctca ttacttacca gtctcatctt ctactccaga ggggtgagag
10081 aaacctatct aagagtatga gagataacct gcgacaattg agttctttga tgaggcaggt
10141 gctgggcggg cacggagaag atacctaga gtcagacgac aacattcaac gactgctaaa
10201 agactcttta cgaaggacaa gatgggtgga tcaagagggt cgccatgcag ctagaaccat
10261 gactggagat tacagcccca acaagaagggt gtcccgtaa gtaggatgtt cagaatgggt
10321 ctgctctgct caacagggtg cagtctctac ctcagcaaac ccggcccctg tctcggagct
10381 tgacataagg gccctctcta agaggttcca gaaccctttg atctcgggct tgagagtgggt
10441 tcagtgggca accgggtgctc attataagct taagcctatt ctagatgata tcaatgtttt
10501 cccatctctc tgcctttagt ttggggacgg gtcagggggg atatcaaggg cagtcctcaa
10561 catgtttcca gatgccaagc ttgtgttcaa cagtctttta gaggtgaatg acctgatggc
10621 ttccggaaca catccactgc ctccttcagc aatcatgagg ggaggaaatg atatcgtctc
10681 cagagtgata gatcttgact caatctggga aaaaccgtcc gacttgagaa acttggcaac
10741 ctggaaatac ttccagtcag tccaaaagca ggtcaacatg tcctatgacc tcattatttg
10801 cgatgcagaa gttactgaca ttgcatctat caaccggatc accctgttaa tgtccgattt
10861 tgcattgtct atagatggac cactctattt ggtcttcaaa acttatggga ctatgctagt
10921 aaatccaaac tacaaggcta ttcaacacct gtcaagagcg ttcccctcgg tcacagggtt
10981 tatcacccaa gtaacttcgt ctttttcata tgagctctac ctccgattct ccaaacgagg
11041 gaagtttttc agagatgctg agtacttgac ctcttcacc cttcgagaaa tgagccttgt
11101 gttattcaat tgtagcagcc ccaagagtga gatgcagaga gctcgttcct tgaactatca
11161 ggatcttgtg agaggatttc ctgaagaaat catatcaaat cttacaatg agatgatcat
11221 aactctgatt gacagtgatg tagaatcttt tctagtccac aagatgggtg atgatcttga
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## Fig. 9B-7

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11281 gttacagagg ggaactctgt ctaaagtggc tatcattata gccatcatga tagttttctc
11341 caacagagtc ttcaacgttt ccaaaccctt aactgacccc tcgttctatc caccgtctga
11401 tcccaaatc ctgaggcact tcaacatatg ttgcagtact atgatgtatc tatctactgc
11461 tttaggtgac gtccctagct tcgcaagact tcacgacctg tataacagac ctataactta
11521 ttacttcaga aagcaagtca ttcgagggaa cgtttatcta tcttggagtt ggtccaacga
11581 cacctcagtg ttcaaaaggg tagcctgtaa ttctagcctg agtctgtcat ctcactggat
11641 caggttgatt tacaagatag tgaagactac cagactcgtt ggcagcatca aggatctatc
11701 cagagaagtg gaaagacacc ttcataggta caacaggtgg atcaccctag aggatatcag
11761 atctagatca tccctactag actacagttg cctgtgaacc ggatactcct ggaagcctgc
11821 ccatgctaag actcttgtgt gatgtatctt gaaaaaaca agatcctaaa tctgaacctt
11881 tggttgtttg attgtttttc tcatttttgt tgtttatttg ttaagcgt
```

Fig. 9C-1

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1  acgcttaaca accagatcaa agaaaaaaca gacattgtca attgcaaagc aaaaatgtaa
61  cacccttaca atggatgccg acaagattgt attcaaagtc aataatcagg tggctctctt
121 gaagcctgag attatcgtgg atcaatatga gtacaagtac cctgccatca aagatttgaa
181 aaagccctgt ataaccctag gaaaggctcc cgatttaaat aaagcataca agtcagtttt
241 gtcaggcatg agcgccgcc aacttaatcc tgacgatgta tgttcctatt tggcagcggc
301 aatgcagttt tttaggggga catgtccgga agactggacc agctatggaa ttgtgattgc
361 acgaaaagga gataagatca cccaggttc tctggtggag ataaaacgta ctgatgtaga
421 aggggaattgg gctctgacag gaggcattga actgacaaga gacccactg tccctgagca
481 tgcgtcctta gtcggtcttc tcttgagtct gtataggttg agcaaaatat cggggcaaaa
541 cactggtaac tataagacaa acattgcaga caggatagag cagatttttg agacagcccc
601 ttttgttaaa atcgtggaac accatactct aatgacaact cacaaaatgt gtgctaattg
661 gagtactata ccaaacttca gatttttggc cggaacctat gacatgtttt tctcccggat
721 tgagcatcta tattcagcaa tcagagtggg cacagttgtc actgcttatg aagactgttc
781 aggactggta tcatttactg ggttcataaa acaaatcaat ctcaccgcta gagaggcaat
841 actatatttc tccacaaga actttgagga agagataaga agaattgttg agccaggggca
901 ggagacagct gttcctcact cttatttcat ccacttccgt tcactaggct tgagtgggaa
961 atctccttat tcatcaaatg ctgttggtca cgtgttcaat ctcattcact ttgtaggatg
1021 ctatatgggt caagtcagat ccctaaatgc aacggttatt gctgcatgtg ctcctcatga
1081 aatgtctgtt ctagggggct atctgggaga ggaattcttc gggaaaggga catttgaaag
1141 aagattcttc agagatgaga aagaacttca agaatacgag gcggctgaac tgacaaagac
1201 tgacgtagca ctggcagatg atggaactgt caacCAAgac gacgaggact acttttcagg
1261 tgaaaccaga agtccggagg ctgtttatac tcgaatcatg atgaatggag gtcgactaaa
1321 gagatctcac atacggagat atgtctcagt cagttccaat catcaagccc gtccaaactc
1381 attcgccgag tttctaaaca agacatattc gagtgactca taagaagttg aataacaaaa
1441 tgccggaaat ctacggattg tgtatatcca tcatgaaaaa aactaacacc cctcctttcg
1501 aaccatccca aacatgagca agatctttgt caatcctagt gctattagag ccggtctggc
1561 cgatcttgag atggctgaag aaactgttga tctgatcaat agaaatatcg aagacaatca
1621 ggctcatctc caaggggaac ccatagaggt ggacaatctc cctgaggata tggggcgact
1681 tcacctggat gatggaaaat cgcccaacca tgggtgagata gccaaaggtgg gagaaggcaa
1741 gtatcgagag gactttcaga tggatgaagg agaggatcct agcttcctgt tccagtcata
1801 cctggaaaat gttggagtcc aaatagtcag acaaatgagg tcaggagaga gatttctcaa
  
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Fig. 9C-2

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1861 gatatgggtca cagaccgtag aagagattat atcctatgtc gcggtcaact ttcccaaccc
1921 tccaggaaaag tcttcagagg ataaatcaac ccagactact ggccgagagc tcaagaagga
1981 gacaacaccc actccttctc agagagaaaag ccaatcatcg aaagccagga tggcgggtca
2041 aattgcttct ggccctccag cccttgaatg gtcgggtacc aatgaagagg atgatctatc
2101 agtggaggct gagatcgctc accagattgc agaaagtttc tccaaaaaat ataagtttcc
2161 ctctcgatcc tcagggatac tcttgataaa ttttgagcaa ttgaaaatga accttgatga
2221 tatagttaaa gaggcaaaaa atgtaccagg tgtgaccctg ttagcccatg acgggtccaa
2281 actcccccta agatgtgtac tgggatgggt cgctttggcc aactctaaga aattccagtt
2341 gttagtcgaa tccgacaagc tgagtaaaat catgcaagat gacttgaatc gctatacatc
2401 ttgctaaccg aacctctccc ctgagtcctt ctagacaata aaatccgaga tgtcccaaag
2461 tcaacatgaa aaaaacaggc aacaccactg ataaaatgaa cctcctacgt aagatagtga
2521 aaaaccgcag ggacgaggac actcaaaaat cctctcccg ctcagccctt ctggatgacg
2581 atgacttgtg gcttccaccc cctgaatacg tcccgtgaa agaacttaca ggcaagaaga
2641 acatgaggaa cttttgtatc aacggaaggg ttaaagtgtg tagcccgaaat ggttactcgt
2701 tcaggatcct gcggcacatt ctgaaatcat tcgacgagat atattctggg aatcatagga
2761 tgatcggtt agtcaaagt gttattggac tggctttgtc aggatctcca gtccctgagg
2821 gcctgaactg ggtatacaaa ttgaggagaa ctttatctt ccagtgggt gattccaggg
2881 gccctcttga aggggaggag ttggaatact ctcaggagat cacttgggat gatgatactg
2941 agttcgtcgg attgcaaata agagtgattg caaaacagtg tcatatccag ggagagtctt
3001 ggtgtatcaa catgaacccg agagcatgtc aactatgggtc tgacatgtct cttcagacac
3061 aaaggtccga agaggacaaa gattcctctc tgcttctaga ataatcagat tatatccgc
3121 aaatttatca cttgtttacc tctggaggag agaacatatg ggctcaactc caacccttgg
3181 gagcaatata acaaaaaaca tgttatgggtg ccattaaacc gctgcatttc atcaaagtca
3241 agttgattac ctttacattt tgatcctctt ggatgtgaaa aaaactatta acatccctca
3301 aaagactcaa ggaaagatgg ttcctcaggc tctcctgttt gtaccccttc tggtttttcc
3361 atttgtttt gggaattcc ctatttacac gataccagac aagcttggtc cctggagtcc
3421 gattgacata catcacctca gctgccccaa caatttggtg gtggaggacg aaggatgcac
3481 caacctgtca gggttctcct acatggaact taaagttgga tacatcttag ccataaaagt
3541 gaacgggttc acttgcacag gcgttgtgac ggaggctgaa acctacacta acttcgttgg
3601 ttatgtcaca accacgttca aaagaaagca tttccgcca acaccagatg catgtagagc
  
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Fig. 9C-3

3661	cgcggtacaac	tggaagatgg	ccgggtgaccc	cagatatgaa	gagtctctac	acaatccgta
3721	ccctgactac	cgctggcttc	gaactgtaaa	aaccaccaag	gagtctctcg	ttatcatatc
3781	tccaagtgtg	gcagatttgg	acccatatga	cagatccctt	cactcgaggg	tcttccctag
3841	cgggaagtgc	tcaggagtag	cggtgtcttc	tacctactgc	tccactaacc	acgattacac
3901	catttggatg	cccgagaatc	cgagactagg	gatgtcttgt	gacattttta	ccaatagtag
3961	agggaagaga	gcatccaaag	ggagtggagac	ttgcggcttt	gtagatgaaa	gaggcctata
4021	taagtcttta	aaaggagcat	gcaaactcaa	gttatgtgga	gttctaggac	ttagacttat
4081	ggatggaaca	tgggtctcga	tgcaaacatc	aaatgaaacc	aaatgggtgcc	ctcccataa
4141	gttggtgaac	ctgcacgact	ttcgctcaga	cgaaattgag	caccttggtg	tagaggagtt
4201	ggtcaggaag	agagaggagt	gtctggatgc	actagagtcc	atcatgacaa	ccaagtcagt
4261	gagtttcaga	cgtctcagtc	atttaagaaa	acttgtccct	gggtttggaa	aagcatatac
4321	catattcaac	aagaccttga	tggaagccga	tgctcactac	aagtcagtca	gaacttggaa
4381	tgagatcctc	ccttcaaaag	ggtgtttaag	agttgggggg	aggtgtcatc	ctcatgtgaa
4441	cgggggtgtt	ttcaatggta	taatattagg	acctgacggc	aatgtcttaa	tcccagagat
4501	gcaatcatcc	ctcctccagc	aacatatgga	gttgttggaa	tcctcggtta	ttccccttgt
4561	gcaccccctg	gcagacccgt	ctaccgtttt	caaggacggt	gacgaggctg	aggattttgt
4621	tgaagttcac	cttcccgatg	tgcacaatca	ggtctcagga	gttgacttgg	gtctcccga
4681	ctgggggaag	tatgtattac	tgagtgcagg	ggccctgact	gccttgatgt	tgataatttt
4741	cctgatgaca	tgttgtagaa	gagtcaatcg	atcagaacct	acgcaacaca	atctcagagg
4801	gacagggagg	gaggtgtcag	tcactcccca	aagcgggaag	atcatatctt	catgggaatc
4861	acacaagagt	gggggtgaga	ccagactgta	aggactggcc	gtcctttcaa	cgatccaagt
4921	cctgaagatc	acctcccctt	gggggggttct	ttttgaaaaa	cctgggttca	atagtcctcc
4981	ttgaactcca	tgcaactggg	tagattcaag	agtcatgaga	ttttcattaa	tcctctcagt
5041	tgatcaagca	agatcatgtc	gattctcata	ataggggaga	tcttctagca	gtttcagtga
5101	ctaacggtac	tttcattctc	caggaactga	caccaacagt	tgtagacaaa	ccacgggggtg
5161	tctcgggtga	ctctgtgctt	gggcacagac	aaagggtcatg	gtgtgttcca	tgatagcgga
5221	ctcaggatga	gttaattgag	agaggcagtc	ttcctcccgt	gaaggacata	agcagtagct
5281	cacaatcatc	tcgcgtctca	gcaaagtgtg	cataattata	aagtgtctggg	tcattctaagc
5341	ttttcagtcg	agaaaaaac	attagatcag	aagaacaact	ggcaacactt	ctcaacctga
5401	gacttacttc	aagatgctcg	atcctggaga	ggtctatgat	gaccctattg	acccaatcga

Fig. 9C-4

5461	g t t a g a g g c t	g a a c c c a g a g	g a a c c c c c a t	t g t c c c c a a c	a t c t t g a g g a	a c t c t g a c t a
5521	c a a t c t c a a c	t c t c t t t g a	t a g a a g a t c c	t g c t a g a c t a	a t g t t a g a a t	g g t t a a a a a c
5581	a g g g a a t a g a	c c t t a t c g g a	t g a c t c t a a c	a g a c a a t t g c	t c c a g g t c t t	t c a g a g t t t t
5641	g a a a g a t t a t	t t c a a g a a g g	t a g a t t t g g g	t t c t c t c a a g	g t g g g c g g a a	t g g c t g c a c a
5701	g t c a a t g a t t	t c t c t c t g g t	t a t a t g g t g c	c c a c t c t g a a	t c c a a c a g g a	g c c g g a g a t g
5761	t a t a a c a g a c	t t g g c c c a t t	t c t a t t c c a a	g t c g t c c c c c	a t a g a g a a g c	t g t t g a a t c t
5821	c a c g c t a g g a	a a t a g a g g g c	t g a g a a t c c c	c c c a g a g g g a	g t g t t a a g t t	g c c t t g a g a g
5881	g g t t g a t t a t	g a t a a t g c a t	t t g g a a g g t a	t c t t g c c a a c	a c g t a t t c c t	c t t a c t t g t t
5941	c t t c c a t g t a	a t c a c c t t a t	a c a t g a a c g c	c c t a g a c t g g	g a t g a a g a a a	a g a c c a t c c t
6001	a g c a t t a t g g	a a a g a t t t a a	c c t c a g t g g a	c a t c g g g a a g	g a c t t g g t a a	a g t t c a a a g a
6061	c c a a a t a t g g	g g a c t g c t g a	t c g t g a c a a a	g g a c t t t g t t	t a c t c c c a a a	g t t c c a a t t g
6121	t c t t t t t g a c	a g a a a c t a c a	c a c t t a t g c t	a a a a g a t c t t	t t c t t g t c t c	g c t t c a a c t c
6181	c t t a a t g g t c	t t g c t c t c t c	c c c c a g a g c c	c c g a t a c t c a	g a t g a c t t g a	t a t c t c a a c t
6241	a t g c c a g c t g	t a c a t t g c t g	g g g a t c a a g t	c t t g t c t a t g	t g t g g a a a c t	c c g g c t a t g a
6301	a g t c a t c a a a	a t a t t g g a g c	c a t a t g t c g t	g a a t a g t t t a	g t c c a g a g a g	c a g a a a a g t t
6361	t a g g c c t c t c	a t t c a t t c c t	t g g g a g a c t t	t c c t g t a t t t	a t a a a a g a c a	a g g t a a g t c a
6421	a c t t g a a g a g	a c g t t c g g t c	c c t g t g c a a g	a a g g t t c t t t	a g g g c t c t g g	a t c a a t t c g a
6481	c a a c a t a c a t	g a c t t g g t t t	t t g t g t t t g g	c t g t t a c a g g	c a t t g g g g g c	a c c c a t a t a t
6541	a g a t t a t c g a	a a g g g t c t g t	c a a a a c t a t a	t g a t c a g g t t	c a c c t t a a a a	a a a t g a t a g a
6601	t a a g t c c t a c	c a g g a g t g c t	t a g c a a g c g a	c c t a g c c a g g	a g g a t c c t t a	g a t g g g g t t t
6661	t g a t a a g t a c	t c c a a g t g g t	a t c t g g a t t c	a a g a t t c c t a	g c c c g a g a c c	a c c c c t t g a c
6721	t c c t t a t a t c	a a a a c c c a a a	c a t g g c c a c c	c a a a c a t a t t	g t a g a c t t g g	t g g g g g a t a c
6781	a t g g c a c a a g	c t c c c g a t c a	c g c a g a t c t t	t g a g a t t c c t	g a a t c a a t g g	a t c c g t c a g a
6841	a a t a t t g g a t	g a c a a a t c a c	a t t c t t t c a c	c a g a a c g a g a	c t a g c t t c t t	g g c t g t c a g a
6901	a a a c c g a g g g	g g g c c t g t t c	c t a g c g a a a a	a g t t a t t a t c	a c g g c c c t g t	c t a a g c c g c c
6961	t g t c a a t c c c	c g a g a g t t t c	t g a g g t c t a t	a g a c c t c g g a	g g a t t g c c a g	a t g a a g a c t t
7021	g a t a a t t g g c	c t c a a g c c a a	a g g a a c g g g a	a t t g a a g a t t	g a a g g t c g a t	t c t t t g c t c t
7081	a a t g t c a t g g	a a t c t a a g a t	t g t a t t t t g t	c a t c a c t g a a	a a a c t c t t g g	c c a a c t a c a t
7141	c t t g c c a c t t	t t t g a c g c g c	t g a c t a t g a c	a g a c a a c c t g	a a c a a g g t g t	t t a a a a a g c t
7201	g a t c g a c a g g	g t c a c c g g g c	a a g g g c t t t t	g g a c t a t t c a	a g g g t c a c a t	a t g c a t t t c a

Fig. 9C-5

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7261 cctggactat gaaaagtgga acaaccatca aagattagag tcaacagagg atgtattttc
7321 tgtccctagat caagtgtttg gattgaagag agtgttttct agaacacacg agttttttca
7381 aaaggcctgg atctattatt cagacagatc agacctcatc ggggttacggg aggatcaaat
7441 atactgctta gatgcgtcca acggcccaac ctggttgaat ggccaggatg gcgggctaga
7501 aggcttacgg cagaagggtt ggagtctagt cagcttattg atgatagata gagaatctca
7561 aatcaggaac acaagaacca aaatactagc tcaaggagac aaccagggtt tatgtccgac
7621 atacatgttg tcgccagggc tatctcaaga ggggctcctc tatgaattgg agagaatatt
7681 aaggaatgca ctttcgatat acagagccgt cgaggaaggg gcatctaagc tagggctgat
7741 catcaagaaa gaagagacca tgtgtagtta tgacttcctc atctatggaa aaaccctttt
7801 gtttagaggt aacatattgg tgcctgagtc caaaagatgg gccagagtct cttgcgtctc
7861 taatgaccaa atagtcaacc tcgccaatat aatgtcgaca gtgtccacca atgcgctaac
7921 agtggcacia cactctcaat ctttgatcaa accgatgagg gattttctgc tcatgtcagt
7981 acaggcagtc tttcactacc tgctatttag cccaatctta aagggaagag tttacaagat
8041 tctgagcgct gaaggggaga gctttctcct agccatgtca aggataatct atctagatcc
8101 ttctttggga gggatatctg gaatgtccct cggaagattc catatacgac agttctcaga
8161 ccctgtctct gaaggggttat ctttctggag agagatctgg ttaagctccc aagagtcctg
8221 gattcacgcg ttgtgtcaag aggctggaaa ccagatctt ggagagagaa cactcgagag
8281 cttcactcgc cttctagaag atccgaccac cttaaataatc agaggagggg ccagtcctac
8341 cattctactc aaggatgcaa tcagaaaggc tttatatgac gaggtggaca aggtggaaaa
8401 ttcagagttt cgagaggcaa tcctgttgct caagacccat agagataatt ttatactctt
8461 cttaatatct gttgagcctc tgtttcctcg atttctcagt gagctattca gttcgtcttt
8521 tttgggaatc cccgagtcaa tcattggatt gatacaaaac tcccgaacga taagaaggca
8581 gtttagaaaag agtctctcaa aaactttaga agaatacctc tacaactcag agatccacgg
8641 gattagtcgg atgaccaga cacctcagag ggttgggggg gtgtggcctt gctcttcaga
8701 gagggcagat ctacttaggg agatctcttg ggggaagaaa gtggtaggca cgacagttcc
8761 tcacccttct gagatgttgg gattacttcc caagtcctct atttcttgca cttgtggagc
8821 aacaggagga ggcaatccta gagtttctgt atcagtactc ccgtcctttg atcagtcatt
8881 tttttcacga ggccccctaa agggatactt gggctcgtcc acctctatgt cgaccagct
8941 attccatgca tgggaaaaag tcactaatgt tcatgtggtg aagagagctc tatcgtaaaa
9001 agaatactata aactggttca ttactagaga ttccaacttg gctcaagctc taattaggaa
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Fig. 9C-6

9061	cattatgtct	ctgacaggcc	ctgatttccc	tctagaggag	gcccctgtct	tcaaaaggac
9121	ggggtcagcc	ttgcataggt	tcaagtctgc	cagatacagc	gaaggagggt	attcttctgt
9181	ctgcccgaac	ctcctctctc	atatttctgt	tagtacagac	accatgtctg	atttgaccca
9241	agacgggaag	aactacgatt	tcatgttcca	gccattgatg	ctttatgcac	agacatggac
9301	atcagagctg	gtacagagag	acacaaggct	aagagactct	acgtttcatt	ggcacctccg
9361	atgcaacagg	tgtgtgagac	ccattgacga	cgtgaccctg	gagacctctc	agatcttcga
9421	gtttccgat	gtgtcgaaaa	gaatatccag	aatggtttct	ggggctgtgc	ctcacttcca
9481	gaggcttccc	gatatccgtc	tgagaccagg	agattttgaa	tctctaagcg	gtagagaaaa
9541	gtctcaccat	atcggatcag	ctcaggggct	cttatactca	atcttagtgg	caattcacga
9601	ctcaggatac	aatgatggaa	ccatcttccc	tgtcaacata	tacggcaagg	tttcccctag
9661	agactatttg	agagggctcg	caaggggagt	attgatagga	tcctcgattt	gcttcttgac
9721	aagaatgaca	aatatcaata	ttaatagacc	tcttgaattg	gtctcagggg	taatctcata
9781	tattctctcg	aggctagata	accatccctc	cttgtaacata	atgctcagag	aaccgtctct
9841	tagaggagag	atatttttcta	tccctcagaa	aatccccgcc	gcttatccaa	ccactatgaa
9901	agaaggcaac	agatcaatct	tgtgttatct	ccaacatgtg	ctacgctatg	agcgagagat
9961	aatcacggcg	tctccagaga	atgactggct	atggatcttt	tcagacttta	gaagtgccaa
10021	aatgacgtac	ctatccctca	ttacttacca	gtctcatctt	ctactccaga	gggttgagag
10081	aaacctatct	aagagtatga	gagataacct	gcgacaattg	agttctttga	tgaggcaggt
10141	gctgggcggg	cacggagaag	ataccttaga	gtcagacgac	aacattcaac	gactgctaaa
10201	agactcttta	cgaaggacaa	gatgggtgga	tcaagagggtg	cgccatgcag	ctagaaccat
10261	gactggagat	tacagcccca	acaagaagggt	gtcccgttaag	gtaggatgtt	cagaatgggt
10321	ctgctctgct	caacagggtg	cagtctctac	ctcagcaaac	ccggcccctg	tctcggagct
10381	tgacataagg	gccctctcta	agagggttcca	gaaccctttg	atctcgggct	tgagagtgggt
10441	tcagtgggca	accggtgctc	attataagct	taagcctatt	ctagatgatc	tcaatgtttt
10501	cccatctctc	tgcctttag	ttggggacgg	gtcagggggg	atatcaaggg	cagtcctcaa
10561	catgtttcca	gatgccaaagc	ttgtgttcaa	cagtctttta	gaggtgaatg	acctgatggc
10621	ttccggaaca	catccactgc	ctccttcagc	aatcatgagg	ggaggaaatg	atatcgtctc
10681	cagagtgata	gatcttgact	caatctggga	aaaaccgtcc	gacttgagaa	acttggaac
10741	ctggaaatac	ttccagtcag	tccaaaagca	ggtcaacatg	tcctatgacc	tcattatttg
10801	cgatgcagaa	gttactgaca	ttgcatctat	caaccggatc	accctgttaa	tgtccgattt

Fig. 9C-7

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10861 tgcattgtct atagatggac cactctatTT ggtcttcaaa acttatggga ctatgctagt
10921 aaatccaaac tacaaggcta ttcaacacct gtcaagagcg ttcccctcgg tcacagggtt
10981 tatcacccaa gtaacttcgt ctttttcatc tgagctctac ctccgattct ccaaacgagg
11041 gaagtttttc agagatgctg agtacttgac ctcttcacc cttcgagaaa tgagccttgt
11101 gttattcaat tgtagcagcc ccaagagtga gatgcagaga gctcgttcct tgaactatca
11161 ggatcttgtg agaggatttc ctgaagaaat catatcaaat cttacaatg agatgatcat
11221 aactctgatt gacagtgatg tagaatcttt tctagtccac aagatgggtg atgatcttga
11281 gttacagagg ggaactctgt ctaaagtggc tatcattata gccatcatga tagttttctc
11341 caacagagtc ttcaacgttt ccaaaccctt aactgacccc tcgttctatc caccgtctga
11401 tcccaaaatc ctgaggcact tcaacatatg ttgcagtact atgatgtatc tatctactgc
11461 tttaggtgac gtccctagct tcgcaagact tcacgacctg tataacagac ctataactta
11521 ttacttcaga aagcaagtca ttcgagggaa cgtttatcta tcttggagtt ggtccaacga
11581 cacctcagtg ttcaaaaggg tagcctgtaa ttctagcctg agtctgtcat ctactggat
11641 caggttgatt tacaagatag tgaagactac cagactcgtt ggcagcatca aggatctatc
11701 cagagaagtg gaaagacacc ttcataggta caacaggtgg atcaccctag aggatatcag
11761 atctagatca tccctactag actacagttg cctgtgaacc ggatactcct ggaagcctgc
11821 ccatgctaag actcttgtgt gatgtatctt gaaaaaaca agatcctaaa tctgaacctt
11881 tggttgtttg attgtttttc tcatttttgt tgtttatttg ttaagcgt
```

Fig. 9D-1

```
1  acgcttaaca accagatcaa agaaaaaaca gacattgtca attgcaaagc aaaaatgtaa
61  cacccttaca atggatgccg acaagattgt attcaaagtc aataatcagg tggctctctt
121 gaagcctgag attatcgtgg atcaatatga gtacaagtac cctgccatca aagatttgaa
181 aaagccctgt ataaccctag gaaaggctcc cgatttaaataaagcataca agtcagtttt
241 gtcaggcatg agcgccgcca aacttaatcc tgacgatgta tgttcctatt tggcagcggc
301 aatgcagttt tttgagggga catgtccgga agactggacc agctatggaa ttgtgattgc
361 acgaaaagga gataagatca ccccagggtt tctgggtggag ataaaacgta ctgatgtaga
421 aggggaattgg gctctgacag gaggcattgga actgacaaga gacccctactg tccctgagca
481 tgcgtcctta gtcggtcttc tcttgagtct gtatagggtg agcaaaatat ccgggcaaaa
541 cactggtaac tataagacaa acattgcaga caggatagag cagatttttg agacagcccc
601 ttttgtaaaa atcgtggaac accatactct aatgacaact cacaaaatgt gtgctaattg
661 gagtactata ccaaacttca gatttttggc cggaacctat gacatgtttt tctcccggat
721 tgagcatcta tattcagcaa tcagagtggg cacagttgtc actgcttatg aagactgttc
781 aggactggta tcatttactg ggttcataaa acaaatcaat ctcaccgcta gagaggcaat
841 actatatttc ttccacaaga actttgagga agagataaga agaattgttg agccagggca
901 ggagacagct gttcctcact cttatttcat ccacttccgt tcactaggct tgagtgggaa
961 atctccttat tcatcaaatg ctgttgggtca cgtgttcaat ctcattcact ttgtaggatg
1021 ctatatgggt caagtcagat ccctaaatgc aacggttatt gctgcatgtg ctcctcatga
1081 aatgtctgtt ctagggggct atctgggaga ggaattcttc gggaaaggga catttgaaag
1141 aagattcttc agagatgaga aagaacttca agaatacgag gcggctgaac tgacaaagac
1201 tgacgtagca ctggcagatg atggaactgt caacCAAgac gacgaggact acttttcagg
1261 tgaaaccaga agtccggagg ctgtttatac tcgaatcatg atgaatggag gtcgactaaa
1321 gagatctcac atacggagat atgtctcagt cagttccaat catcaagccc gtccaaactc
1381 attcgccgag tttctaaaca agacatattc gactgactca taagaagttg aataacaaaa
1441 tgccggaaat ctacggattg tgtatatcca tcatgaaaaa aactaacacc cctcctttcg
1501 aaccatccca aacatgagca agatctttgt caatcctagt gctattagag ccggtctggc
1561 cgatcttgag atggctgaag aaactgttga tctgatcaat agaaatatcg aagacaatca
1621 ggctcatctc caaggggaac ccatagaggt ggacaatctc cctgaggata tggggcgact
1681 tcacctggat gatggaaaat cgcccaacca tggtagata gccaaagggtg gagaaaggca
1741 gtatcgagag gactttcaga tggatgaagg agaggatcct agcttcctgt tccagtcata
1801 cctggaaaat gttggagtcc aaatagtcag acaaatgagg tcaggagaga gatttctcaa
```

## Fig. 9D-2

```
1861 gatatggtca cagaccgtag aagagattat atcctatgtc gcggtcaact ttcccaaccc
1921 tccaggaaag tcttcagagg ataaatcaac ccagactact ggccgagagc tcaagaagga
1981 gacaacaccc actccttctc agagagaaag ccaatcatcg aaagccagga tggcggctca
2041 aattgcttct ggccctccag cccttgaatg gtcggctacc aatgaagagg atgatctatc
2101 agtggaggct gagatcgctc accagattgc agaaagtttc tccaaaaaat ataagtttcc
2161 ctctcgatcc tcagggatac tcttgataaa ttttgagcaa ttgaaaatga accttgatga
2221 tatagttaaa gaggcaaaaa atgtaccagg tgtgaccctg ttagcccatg acgggtccaa
2281 actcccccta agatgtgtac tgggatgggt cgctttggcc aactctaaga aattccagtt
2341 gttagtcgaa tccgacaagc tgagtaaaat catgcaagat gacttgaatc gctatacatc
2401 ttgctaaccg aacctctccc ctcatgccct ctagacaata aaatccgaga tgtcccaaag
2461 tcaacatgaa aaaaacaggc aacaccactg ataaaatgaa cctcctacgt aagatagtga
2521 aaaaccgcag ggacgaggac actcaaaaat cctctcccgc gtcagcccct ctggatgacg
2581 atgacttgtg gcttccaccc cctgaatacg tcccgtgaa agaacttaca ggcaagaaga
2641 acatgaggaa cttttgtatc aacggaaggg ttaaagtgtg tagcccgaat ggttactcgt
2701 tcaggatcct gcggcacatt ctgaaatcat tcgacgagat atattctggg aatcatagga
2761 tgatcgggtt agtcaaagtg gttattggac tggctttgtc aggatctcca gtccctgagg
2821 gcctgaactg ggtatacaaa ttgaggagaa cctttatctt ccagtgggct gattccaggg
2881 gccctcttga aggggaggag ttggaatact ctcaggagat cacttgggat gatgatactg
2941 agttcgtcgg attgcaaata agagtgattg caaaacagtg tcatatccag ggcagagtct
3001 ggtgtatcaa catgaacccg agagcatgtc aactatgggtc tgacatgtct cttcagacac
3061 aaaggtccga agaggacaaa gattcctctc tgcttctaga ataatcagat tatatcccgc
3121 aaatttatca cttgtttacc tctggaggag agaacatatg ggctcaactc caacccttgg
3181 gagcaatata acaaaaaaca tgttatgggt ccattaaac cgtgcatttc atcaaagtca
3241 agttgattac ctttacattt tgatcctctt ggatgtgaaa aaaactatta acatccctca
3301 aaagactcaa ggaaagatgg ttcctcaggc tctcctgttt gtacccttc tggtttttcc
3361 attgtgtttt gggaaattcc ctatttacac gataccagac aagcttgggtc cctggagtcc
3421 gattgacata catcacctca gctgccc aaa caatttggtg gtggaggacg aaggatgcac
3481 caacctgtca gggttctcct acatggaact taaagtggga tacatcttag ccataaaagt
3541 gaacgggttc acttgcacag gcgttggtgac ggaggctgaa acctacacta acttcgttgg
3601 ttatgtcaca accacgttca aaagaaagca tttccgcca acaccagatg catgtagagc
```

Fig. 9D-3

```
3661 cgcgtacaac tggaagatgg ccggtgaccc cagatatgaa gagtctctac acaatccgta
3721 ccctgactac cgctggcttc gaactgtaaa aaccaccaag gagtctctcg ttatcatatc
3781 tccaagtgtg gcagatttgg acccatatga cagatccctt cactcgaggg tcttccctag
3841 cgggaagtgc tcaggagtag cgggtgtcttc tacctactgc tccactaacc acgattacac
3901 catttgatg cccgagaatc cgagactagg gatgtcttgt gacattttta ccaatagtag
3961 agggaagaga gcatccaaag ggagtgagac ttgcggcttt gtagatgaaa gaggcctata
4021 taagtcttta aaaggagcat gcaaactcaa gttatgtgga gttctaggac ttagacttat
4081 ggatggaaca tgggtctcga tgcaaacatc aaatgaaacc aaatgggtgcc ctcccgataa
4141 gttgggtgaac ctgcacgact ttcgctcaga cgaaattgag caccttggtg tagaggagtt
4201 ggtcaggaag agagaggagt gtctggatgc actagagtcc atcatgacaa ccaagtcagt
4261 gagtttcaga cgtctcagtc atttaagaaa acttgtccct gggtttggaa aagcatatac
4321 catattcaac aagaccttga tggaagccga tgctcactac aagtcagtcG AAacttggaa
4381 tgagatcctc cttcaaaaag ggtgtttaag agttgggggg aggtgtcatc ctcatgtgaa
4441 cggggtgttt ttcaatggta taatattagg acctgacggc aatgtcttaa tcccagagat
4501 gcaatcatcc ctccctccagc aacatatgga gttgttggaa tcctcggtta tcccccttgt
4561 gcacccccctg gcagaccctg ctaccgtttt caaggacggt gacgaggctg aggattttgt
4621 tgaagttcac cttcccgatg tgcacaatca ggtctcagga gttgacttgg gtctcccgaa
4681 ctgggggaag tatgtattac tgagtgcagg ggccctgact gccttgatgt tgataatttt
4741 cctgatgaca tgttgtagaa gagtcaatcg atcagaacct acgcaacaca atctcagagg
4801 gacagggagg gaggtgtcag tcaactccca aagcgggaag atcatatctt catgggaatc
4861 acacaagagt gggggtgaga ccagactgta aggactggcc gtcctttcaa cgatccaagt
4921 cctgaagatc acctcccctt ggggggttct ttttgaaaaa cctgggttca atagtcctcc
4981 ttgaactcca tgcaactggg tagattcaag agtcatgaga ttttcattaa tcctctcagt
5041 tgatcaagca agatcatgtc gattctcata ataggggaga tcttctagca gtttcagtga
5101 ctaacggtac tttcattctc caggaactga caccaacagt tgtagacaaa ccacggggtg
5161 tctcgggtga ctctgtgctt gggcacagac aaaggatcat gtgtgttcca tgatagcgga
5221 ctcaggatga gttaattgag agaggcagtc ttcctcccgt gaaggacata agcagtagct
5281 cacaatcatc tcgcgtctca gcaaagtgtg cataattata aagtgtctgg tcatctaagc
5341 ttttcagtcg agaaaaaac attagatcag aagaacaact ggcaaacact ctcaacctga
5401 gacttacttc aagatgctcg atcctggaga ggtctatgat gaccctattg acccaatcga
5461 gttagaggct gaaccagag gaaccccat tgtcccaac atcttgagga actctgacta
```



## Fig. 9D-4

```
5521 caatctcaac tctcctttga tagaagatcc tgctagacta atgttagaat gggttaaaaac
5581 aggggaataga ccttatcgga tgactctaac agacaattgc tccaggtctt tcagagtttt
5641 gaaagattat ttcaagaagg tagatttggg ttctctcaag gtgggcgga tggctgcaca
5701 gtcaatgatt tctctctggt tatatggtgc ccactctgaa tccaacagga gccggagatg
5761 tataacagac ttggcccat tctattccaa gtcgtcccc atagagaagc tgttgaatct
5821 cacgctagga aatagagggc tgagaatccc cccagaggga gtgttaagtt gccttgagag
5881 ggttgattat gataatgcat ttggaaggta tcttgccaac acgtattcct cttacttggt
5941 cttccatgta atcaccttat acatgaacgc cctagactgg gatgaagaaa agaccatcct
6001 agcattatgg aaagatttaa cctcagtgga catcggaag gacttggtta agttcaaaga
6061 ccaaatatgg ggactgctga tcgtgacaaa ggactttgtt tactcccaa gttccaattg
6121 tctttttgac agaaactaca cacttatgct aaaagatctt ttcttgtctc gcttcaactc
6181 cttaatggtc ttgctctctc cccagagacc ccgataactca gatgacttga tatctcaact
6241 atgccagctg tacattgctg gggatcaagt cttgtctatg tgtggaaact ccgctatga
6301 agtcatcaaa atattggagc catatgtcgt gaatagttta gtccagagag cagaaaagtt
6361 taggcctctc attcattcct tgggagactt tcctgtattt ataaaagaca aggtaagtca
6421 acttgaagag acgttcggtc cctgtgcaag aaggttcttt agggctctgg atcaattcga
6481 caacatacat gacttggttt ttgtgtttgg ctgttacagg cattgggggc acccatatat
6541 agattatcga aagggtctgt caaaactata tgatcaggtt caccttaaaa aaatgataga
6601 taagtcctac caggagtgt tagcaagcga cctagccagg aggatcctta gatggggttt
6661 tgataagtac tccaagtggg atctggattc aagattccta gcccagagacc accccttgac
6721 tccttatatc aaaacccaaa catggccacc caaacatatt gtagacttgg tgggggatac
6781 atggcacaag ctcccgatca cgcagatctt tgagattcct gaatcaatgg atccgtcaga
6841 aatattggat gacaaatcac attctttcac cagaacgaga ctagcttctt ggctgtcaga
6901 aaaccgaggg gggcctgttc ctagcgaaaa agttattatc acggccctgt ctaagccgcc
6961 tgtcaatccc cgagagtttc tgagggtctat agacctcgga ggattgccag atgaagactt
7021 gataattggc ctcaagccaa aggaacggga attgaagatt gaaggtcgat tctttgctct
7081 aatgtcatgg aatctaagat tgtattttgt catcactgaa aaactcttgg ccaactacat
7141 cttgccactt ttgacgcgc tgactatgac agacaacctg aacaagggtt ttaaaaagct
7201 gatcgacagg gtcaccgggc aagggtcttt ggactattca agggtcacat atgcatttca
7261 cctggactat gaaaagtgga acaaccatca aagattagag tcaacagagg atgtattttc
```

## Fig. 9D-5

```
7321 tgtcctagat caagtgtttg gattgaagag agtgttttct agaacacacg agttttttca
7381 aaaggcctgg atctattatt cagacagatc agacctcatc gggttacggg aggatcaaat
7441 atactgctta gatgcgtcca acggcccaac ctgttgggaat ggccaggatg gcgggctaga
7501 aggcttacgg cagaagggtt ggagtctagt cagcttattg atgatagata gagaatctca
7561 aatcaggaac acaagaacca aaatactagc tcaaggagac aaccagggtt tatgtccgac
7621 atacatgttg tcgccagggc tatctcaaga ggggctcctc tatgaattgg agagaatatc
7681 aaggaatgca ctttcgatat acagagccgt cgaggaaggg gcatctaagc tagggctgat
7741 catcaagaaa gaagagacca tgtgtagtta tgacttcctc atctatggaa aaaccctttt
7801 gttagaggtt aacatattgg tgcctgagtc caaaagatgg gccagagtct cttgcgtctc
7861 taatgaccaa atagtcaacc tcgccaatat aatgtcgaca gtgtccacca atgcgctaac
7921 agtggcacia cactctcaat ctttgatcaa accgatgagg gattttctgc tcatgtcagt
7981 acaggcagtc tttcactacc tgctatttag cccaatctta aagggaagag tttaacaagat
8041 tctgagcgct gaaggggaga gctttctcct agccatgtca aggataatct atctagatcc
8101 ttctttggga gggatatctg gaatgtccct cggaagattc catatacgac agttctcaga
8161 ccctgtctct gaagggttat ctttctggag agagatctgg ttaagctccc aagagtcctg
8221 gattcacgcg ttgtgtcaag aggctggaaa cccagatctt ggagagagaa cactcgagag
8281 cttcactcgc cttctagaag atccgaccac cttaaataatc agaggagggg ccagtcctac
8341 cattctactc aaggatgcaa tcagaaaggc tttatatgac gaggtggaca aggtggaaaa
8401 ttcagagttt cgagaggcaa tcctgttggt caagacccat agagataatt ttatactctt
8461 cttaatatct gttgagcctc tgtttcctcg atttctcagt gagctattca gttcgtcttt
8521 tttgggaatc cccgagtcaa tcattggatt gatacaaaac tcccgaacga taagaaggca
8581 gttagaaaag agtctctcaa aaactttaga agaatccttc tacaactcag agatccacgg
8641 gattagtcgg atgaccaga cacctcagag gggtgggggg gtgtggcctt gctcttcaga
8701 gagggcagat ctacttaggg agatctcttg gggaagaaaa gtggtaggca cgacagttcc
8761 tcacccttct gagatgttgg gattacttcc caagtcctct atttcttgca cttgtggagc
8821 aacaggagga ggcaatccta gagtttctgt atcagtactc ccgtcctttg atcagtcatt
8881 tttttcacga ggccccctaa agggatactt gggctcgtcc acctctatgt cgacccagct
8941 attccatgca tgggaaaaag tcactaatgt tcatgtggtg aagagagctc tatcggtaaa
9001 agaatctata aactggttca ttactagaga ttccaacttg gctcaagctc taattaggaa
9061 cattatgtct ctgacaggcc ctgatttccc tctagaggag gcccctgtct tcaaaaggac
```

Fig. 9D-6

9121	ggggtcagcc	ttgcataggt	tcaagtctgc	cagatacagc	gaaggagggt	attcttctgt
9181	ctgcccgaac	ctcctctctc	atatttctgt	tagtacagac	accatgtctg	atttgaccca
9241	agacgggaag	aactacgatt	tcatgttcca	gccattgatg	ctttatgcac	agacatggac
9301	atcagagctg	gtacagagag	acacaaggct	aagagactct	acgtttcatt	ggcacctccg
9361	atgcaacagg	tgtgtgagac	ccattgacga	cgtgaccctg	gagacctctc	agatcttcga
9421	gtttccggat	gtgtcgaaaa	gaatatccag	aatggtttct	ggggctgtgc	ctcacttcca
9481	gaggcttccc	gatatccgtc	tgagaccagg	agattttgaa	tctctaagcg	gtagagaaaa
9541	gtctcaccat	atcggatcag	ctcaggggct	cttatactca	atcttagtgg	caattcacga
9601	ctcaggatac	aatgatggaa	ccatcttccc	tgtcaacata	tacggcaagg	tttcccctag
9661	agactatttg	agagggtctg	caaggggagt	attgatagga	tcctcgattt	gcttcttgac
9721	aagaatgaca	aatatcaata	ttaatagacc	tcttgaattg	gtctcagggg	taatctcata
9781	tattctcctg	aggctagata	accatccctc	cttgtacata	atgctcagag	aaccgtctct
9841	tagaggagag	atattttcta	tccctcagaa	aatccccgcc	gcttatccaa	ccactatgaa
9901	agaaggcaac	agatcaatct	tgtgttatct	ccaacatgtg	ctacgctatg	agcgagagat
9961	aatcacggcg	tctccagaga	atgactggct	atggatcttt	tcagacttta	gaagtgccaa
10021	aatgacgtac	ctatccctca	ttacttacca	gtctcatctt	ctactccaga	gggttgagag
10081	aaacctatct	aagagtatga	gagataacct	gcgacaattg	agttctttga	tgaggcaggt
10141	gctgggcggg	cacggagaag	ataccttaga	gtcagacgac	aacattcaac	gactgctaaa
10201	agactcttta	cgaaggacaa	gatgggtgga	tcaagagggtg	cgccatgcag	ctagaaccat
10261	gactggagat	tacagcccca	acaagaagg	gtcccgtgtaag	gtaggatgtt	cagaatgggt
10321	ctgctctgct	caacagggtt	cagtctctac	ctcagcaaac	ccggcccctg	tctcggagct
10381	tgacataagg	gccctctcta	agagggttcca	gaaccctttg	atctcgggct	tgagagtgg
10441	tcagtgggca	accggtgctc	attataagct	taagcctatt	ctagatgata	tcaatgtttt
10501	cccattctct	tgccttgtag	ttggggacgg	gtcagggggg	atatcaagg	cagtcctcaa
10561	catgtttcca	gatgccaaag	ttgtgttcaa	cagtctttta	gaggtgaatg	acctgatggc
10621	ttccggaaca	catccactgc	ctccttcagc	aatcatgagg	ggaggaaatg	atatcgtctc
10681	cagagtata	gatcttgact	caatctggga	aaaaccgtcc	gacttgagaa	acttggaac
10741	ctggaaatac	ttccagtcag	tccaaaagca	ggtcaacatg	tcctatgacc	tcattatttg
10801	cgatgcagaa	gttactgaca	ttgcatctat	caaccggatc	accctgttaa	tgtccgattt
10861	tgcattgtct	atagatggac	cactctattt	ggtcttcaaa	acttatggga	ctatgctagt

Fig. 9D-7

```
10921 aaatccaaac tacaaggcta ttcaacacct gtcaagagcg ttcccctcgg tcacagggtt
10981 tatcacccaa gtaacttcgt ctttttcatc tgagctctac ctccgattct ccaaacgagg
11041 gaagtthttc agagatgctg agtacttgac ctcttccacc cttcgagaaa tgagccttgt
11101 gttattcaat tgtagcagcc ccaagagtga gatgcagaga gctcgttcct tgaactatca
11161 ggatcttggt agaggatttc ctgaagaaat catatcaaat cttacaatg agatgatcat
11221 aactctgatt gacagtgatg tagaatcttt tctagtccac aagatgggtg atgatcttga
11281 gttacagagg ggaactctgt ctaaagtggc tatcattata gccatcatga tagttttctc
11341 caacagagtc ttcaacgttt ccaaaccctt aactgacccc tcgttctatc caccgtctga
11401 tcccaaaatc ctgaggcact tcaacatatg ttgcagtact atgatgtatc tatctactgc
11461 tttaggtgac gtccctagct tcgcaagact tcacgacctg tataacagac ctataactta
11521 ttacttcaga aagcaagtca ttcgagggaa cgtttatcta tcttgaggtt ggtccaacga
11581 cacctcagtg ttcaaaaggg tagcctgtaa ttctagcctg agtctgtcat ctcactggat
11641 caggttgatt tacaagatag tgaagactac cagactcgtt ggcagcatca aggatctatc
11701 cagagaagtg gaaagacacc ttcataggta caacaggtgg atcaccctag aggatatcag
11761 atctagatca tccctactag actacagttg cctgtgaacc ggatactcct ggaagcctgc
11821 ccatgctaag actcttgtgt gatgtatctt gaaaaaaca agatcctaaa tctgaacctt
11881 tggttgtttg attgtttttc tcatttttgt tgtttatttg ttaagcgt
```

## Fig. 10A

Rabies virus G amino acid sequence (wt, Arginine 333 underlined):

MVPQALLFVPLLVFPLCFGKFPIYTIPDKLGPWSPIDIHHLSCPNNLVVEDEGCTNLSGFSY  
MELKVGYILAIKVNGFTCTGVVTEAETYTNFVG YVTTTFRKRKHF RPTPDACRAAYNWMAGDP  
RYEESLHNPYPDYRWLRTVKT TKE SLV IISPSVADLDPYDRSLHSRVFPSGKCSGVAVSSTY  
CSTNHDTI WMPENPRLGMSCDIFTNSRGKRASKGSETCGFVDERGLYKSLKGACKLKLCGV  
LGLRLMDGTWVSMQTSNETKWCPPDKLVNLHDFRSDEIEHLVVEELVRKREECLDALESIMT  
TKSVSFRRLSHLRKLVPGFGKAYTIFNKTLMEADAHYKSVRTWNEILPSKGCLRVGGRCHPH  
VNGVFFNGIILGPDGNVLIPEMQSSLLQQHMELLE SSVIPLVHPLADPSTVFKDGD EADFV  
EVHLPDVHNQVSGVDLGLPNWGKYVLLSAGALTALMLIIFLMTCCRRVNRSEPTQHNLRG TG  
REVSVTPQSGKI ISSWESHKSGGETRL

## Fig. 10B

Rabies virus G amino acid sequence (wt, Arginine 333 mutated to Glutamic acid,  
underlined):

MVPQALLFVPLLVFPLCFGKFPIYTIPDKLGPWSPIDIHHLSCPNNLVVEDEGCTNLSGFSY  
MELKVGYILAIKVNGFTCTGVVTEAETYTNFVG YVTTTFRKRKHF RPTPDACRAAYNWMAGDP  
RYEESLHNPYPDYRWLRTVKT TKE SLV IISPSVADLDPYDRSLHSRVFPSGKCSGVAVSSTY  
CSTNHDTI WMPENPRLGMSCDIFTNSRGKRASKGSETCGFVDERGLYKSLKGACKLKLCGV  
LGLRLMDGTWVSMQTSNETKWCPPDKLVNLHDFRSDEIEHLVVEELVRKREECLDALESIMT  
TKSVSFRRLSHLRKLVPGFGKAYTIFNKTLMEADAHYKSVETWNEILPSKGCLRVGGRCHPH  
VNGVFFNGIILGPDGNVLIPEMQSSLLQQHMELLE SSVIPLVHPLADPSTVFKDGD EADFV  
EVHLPDVHNQVSGVDLGLPNWGKYVLLSAGALTALMLIIFLMTCCRRVNRSEPTQHNLRG TG  
REVSVTPQSGKI ISSWESHKSGGETRL

## Fig. 11A

Rabies virus N amino acid sequence (wt, phosphorylated serine underlined):

MDADKIVFKVNNQVVSLKPEIIVDQYEEKYPAIKDLKKPCITLGKAPDLNKAYKSVLSGMSAA  
KLNPDVCSYLAAAMQFFEGTCDWTSYGIVIAARKGDKITPGSLVEIKRTDVEGNWALTGGM  
ELTRDPTVPEHASLVGLLLSLYRLSKISGQNTGNYKTNIADRIEQIFETAPFVKIVEHHTLMT  
THKMCANWSTIPNFRFLAGTYDMFFSRIEHLYSAIRVGT VVTAYEDCSGLVSFTGFIKQINLT  
AREAILYFFHKNFEEEEIRRMFEPGQETAVPHSYFIHFRSLGLSGKSPYSSNAVGHVFNLIHFV  
GCYMGQVRSLNATVIAACAPHEMSVLGGYLGEFFFGKGTERRFFRDEKELQEYEAELTKTD  
VALADDGTVNDDEDYFSGETRSPEAVYTRIMMNGGRLKRSHIRRYVSVSSNHQARPNSFAEF  
LNKTYSSDS

## Fig. 11B

Rabies virus N amino acid sequence (Serine to Alanine, see underlined):

MDADKIVFKVNNQVVSLKPEIIVDQYEEKYPAIKDLKKPCITLGKAPDLNKAYKSVLSGMSAA  
KLNPDVCSYLAAAMQFFEGTCDWTSYGIVIAARKGDKITPGSLVEIKRTDVEGNWALTGGM  
ELTRDPTVPEHASLVGLLLSLYRLSKISGQNTGNYKTNIADRIEQIFETAPFVKIVEHHTLMT  
THKMCANWSTIPNFRFLAGTYDMFFSRIEHLYSAIRVGT VVTAYEDCSGLVSFTGFIKQINLT  
AREAILYFFHKNFEEEEIRRMFEPGQETAVPHSYFIHFRSLGLSGKSPYSSNAVGHVFNLIHFV  
GCYMGQVRSLNATVIAACAPHEMSVLGGYLGEFFFGKGTERRFFRDEKELQEYEAELTKTD  
VALADDGTVNADDEDYFSGETRSPEAVYTRIMMNGGRLKRSHIRRYVSVSSNHQARPNSFAEF  
LNKTYSSDS

## Fig. 11C

Rabies virus N amino acid sequence (Serine to Glycine, see underlined):

MDADKIVFKVNNQVVSLKPEIIVDQYEEKYPAIKDLKKPCITLGKAPDLNKAYKSVLSGMSAA  
KLNPDVCSYLAAMQFFEGTCPEDWTSYGIVIAARKGDKITPGSLVEIKRTDVEGNWALTGGM  
ELTRDPTVPEHASLVGLLLSLYRLSKIISGQNTGNYKTNIADRIEQIFETAPFVKIVEHHTLMT  
THKMCANWSTIPNFRFLAGTYDMFFSRIEHLYSAIRVGT VVTAYEDCSGLVSFTGFIKQINLT  
AREAILYFFHKNFEEEEIRRMFEPGQETAVPHSYFIHFRSLGLSGKSPYSSNAVGHVFNLIHFV  
GCYMGQVRSLNATVIAACAPHEMSVLGGYLGEFFFGKGT FERRFFRDEKELQEYEAELTKTD  
VALADDGTVNQDDDEDYFSGETRSPEAVYTRIMMNGGRLKRSHIRRYVSVSSNHQARPNSFAEF  
LNKTYSSDS

## Fig. 11D

Rabies virus N amino acid sequence (Serine to Glutamine, see underlined):

MDADKIVFKVNNQVVSLKPEIIVDQYEEKYPAIKDLKKPCITLGKAPDLNKAYKSVLSGMSAA  
KLNPDVCSYLAAMQFFEGTCPEDWTSYGIVIAARKGDKITPGSLVEIKRTDVEGNWALTGGM  
ELTRDPTVPEHASLVGLLLSLYRLSKIISGQNTGNYKTNIADRIEQIFETAPFVKIVEHHTLMT  
THKMCANWSTIPNFRFLAGTYDMFFSRIEHLYSAIRVGT VVTAYEDCSGLVSFTGFIKQINLT  
AREAILYFFHKNFEEEEIRRMFEPGQETAVPHSYFIHFRSLGLSGKSPYSSNAVGHVFNLIHFV  
GCYMGQVRSLNATVIAACAPHEMSVLGGYLGEFFFGKGT FERRFFRDEKELQEYEAELTKTD  
VALADDGTVNQDDDEDYFSGETRSPEAVYTRIMMNGGRLKRSHIRRYVSVSSNHQARPNSFAEF  
LNKTYSSDS